

BACKGROUND ON THE 3RD ANNUAL SHINGLE RECYCLING FORUM

The *Forum* was a great success as demonstrated by the enthusiastic turnout with over 225 participants. Representatives from over 34 states and three Canadian provinces attended the two days to share experience and expertise on the industry of asphalt shingle recycling. Twenty-four (24) presentations covered new policy developments, advances in technologies, recent research, new market opportunities, and economic benefits. Eight (8) exhibitors displayed processing equipment, information and programs.

The *Forum* provided the opportunity for a wide variety of interests to converge as part of a broad technology and information exchange. Many new partnerships were created and research needs and goals were discussed. Shingle manufacturers are now in continued conversation with hot mix asphalt producers. DOT engineers are developing new research plans. Private entrepreneurs are looking forward to improved markets and processing technologies.

Interests represented at the *Forum* included:

- Shingle recyclers
- Shingle manufacturers
- Roofing contractors
- Hot-mix asphalt plant operators
- County engineers
- C&D recyclers
- Haulers
- Equipment manufacturers
- State DOT engineers
- State and local environmental officials

All available speaker presentations are now posted on www.ShingleRecycling.org. To start the *Forum*, three concurrent *Pre-Forum Roundtables* were held to discuss research and next steps that need to be addressed to advance asphalt shingle recycling. Roundtables were held for DOT officials, Environmental Officials and Shingles Recyclers/HMA Producers/Industry Partners.

Summaries of the roundtable discussions will be posted on the www.ShingleRecycling.org web site in the upcoming weeks.

KEY TAKEAWAYS FROM KING COUNTY REPRESENTATIVES

A good mix of King County Stakeholders and Advisory Group members attended the 3rd Asphalt Shingle Recycling Forum in Chicago in early November to learn more about the latest research and initiatives in tear-off shingle recycling including:

- *Kris Beatty, King County Solid Waste Division (Shingles Project Manager)*
- *Jim Eagan, King County DOT*
- *Joe DeVol, Washington DOT*
- *John Grisham and Butch Brooks, Woodworth & Company, Inc.*
- *Merv Reykdal and Barbara Williams, American Roofing Recyclers*
- *John Yeasting, Glacier Recycle, LLC*
- *Dave Bell and Jeff Carson, Lakeside Industries*

Below are some of the key takeaways and lessons for our exciting work in King County from some of the King County LinkUp stakeholders who attended the Forum:

Key Studies and Publications

- Dakota County, Minnesota is currently pursuing similar demonstration to King County's.
- Metro Vancouver is conducting an HMA demonstration in partnership with LaFarge Cement.
- ["Best Practices Guide"](#), prepared for Construction Materials Recycling Association, prepared by Dan Krivit and Associates, October 11, 2007.

Feasibility of Using RAS in HMA and Other Applications

- Use of tear-off RAS in HMA applications is feasible but will require additional specifications and quality control efforts to ensure acceptable standards are maintained.
- Addition applications for RAS include replacement for coal or other fuels in industrial product manufacturing.

Key Barriers & Strategies to Overcome Barriers

- Inconsistent EPA regulations, environmental concerns and classification of RAS.
- Develop a detailed recycling plan with the regulatory agency(s) that identify all potential concerns and methods to measure and monitor tear-off processing.

Materials Specifications & Environmental Issues

- Many states have developed their own material specifications but there is AASHTO MP 15 and PP 53 materials and design specifications which have recently been revised in an effort to standardize the practice. Many states and municipalities will require modifications to fit the standards into their design and construction programs.
- State and federal asbestos management regulations are covered under NESHAP 30 CFR 61 subpart M and there were other state and county regulations identified around the country. The EPA acknowledged the need to standardize regulations for the recycling of asphalt roofing materials.
- Since 1995, Maine Department of Environmental Protection has not tested for asbestos in residential roofing shingles (Randy McMullin, Maine Dept of Environmental Quality [DEQ])
- Favorable impact on global warming potential from managing post-consumer asphalt shingles by using them in HMA and avoiding CO2 emissions (Cochran, 2006).
- For every one kg of asphalt shingles recycled, 60 kg of CO2 is avoided (Mike Clapham, Natural Resources Canada).
- ["Environmental Issues"](#), prepared for Construction Materials Recycling Association Asphalt Shingle Recycling Project, US EPA Innovations Workgroup, prepared by Dr. Timothy Townsend, Jon Powell, Dr. Chad Xu, Innovative Waste Consulting Services, LLC, October 19, 2007.

Expert Resources for King County

- The collection of individuals, agencies and producers currently participating in the advisory group can provide the support needed to plan, design and construct a successful trial project. Contacts made at the forum include federal, state, academia and private participants all of whom offered their support and requested technology transfer.

Market Development

- As part of the 3rd Asphalt Shingle Recycling Forum there was a DOT Officials Roundtable which included 12 different state representatives and the Ontario Ministry of Transportation. We met to share information and answer questions related to the use of RAS in HMA this may help market development by promoting best practices and removing misconceptions of RAS.
- There was also a meeting with several DOT & FHWA representatives to recruit participation in a pooled fund study on RAS. The primary goal of the study is to address research needs of state DOT and environmental officials to determine the best practices for the use of RAS in HMA applications.
- There may be significant opportunities in markets for non-DOT specified paving.

Opportunities for King County to Contribute

- By continuing to advertise the project being considered, soliciting assistance from individuals, agencies and producers then publish the lessons learned, findings, and results of the project(s) undertaken.